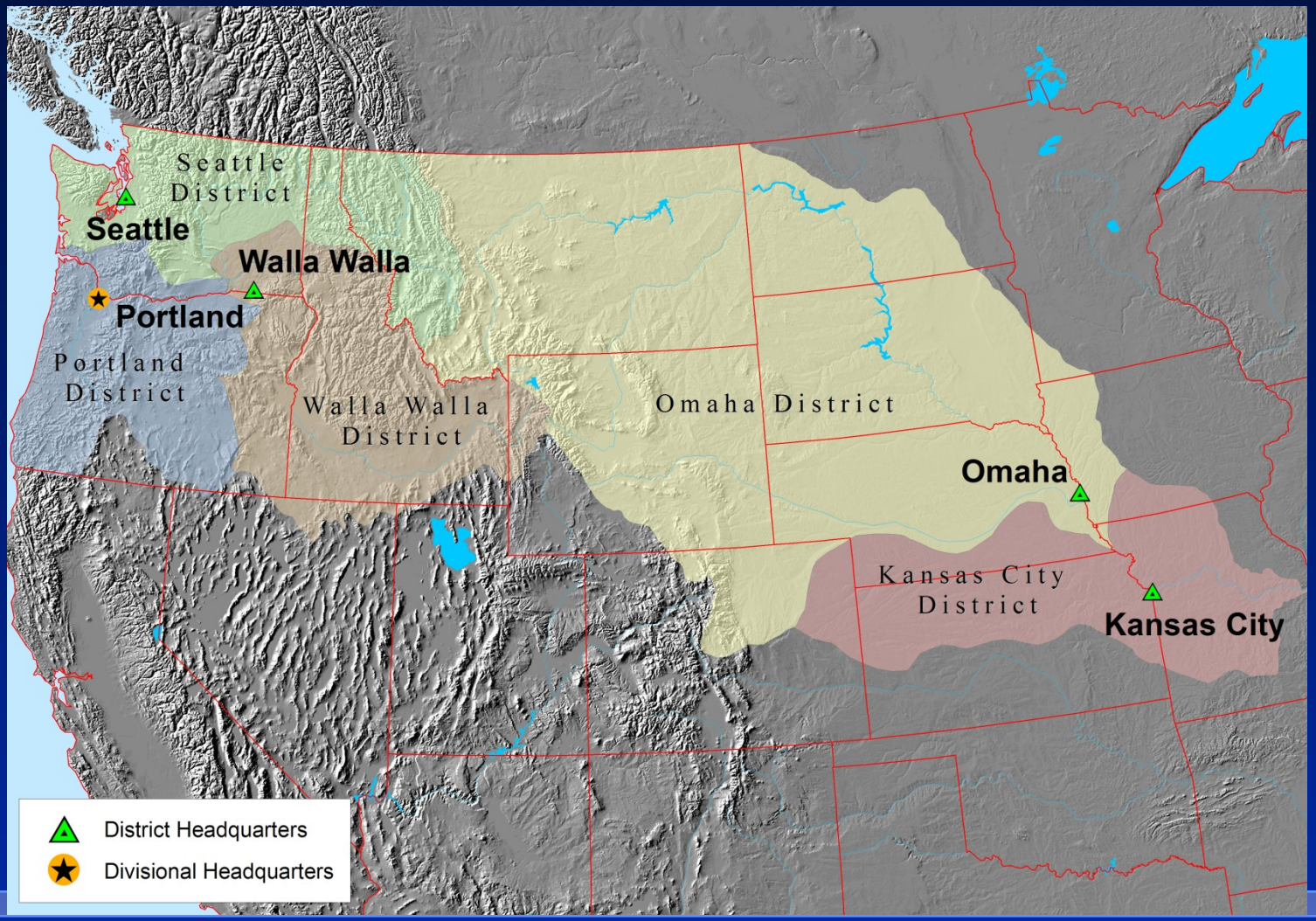
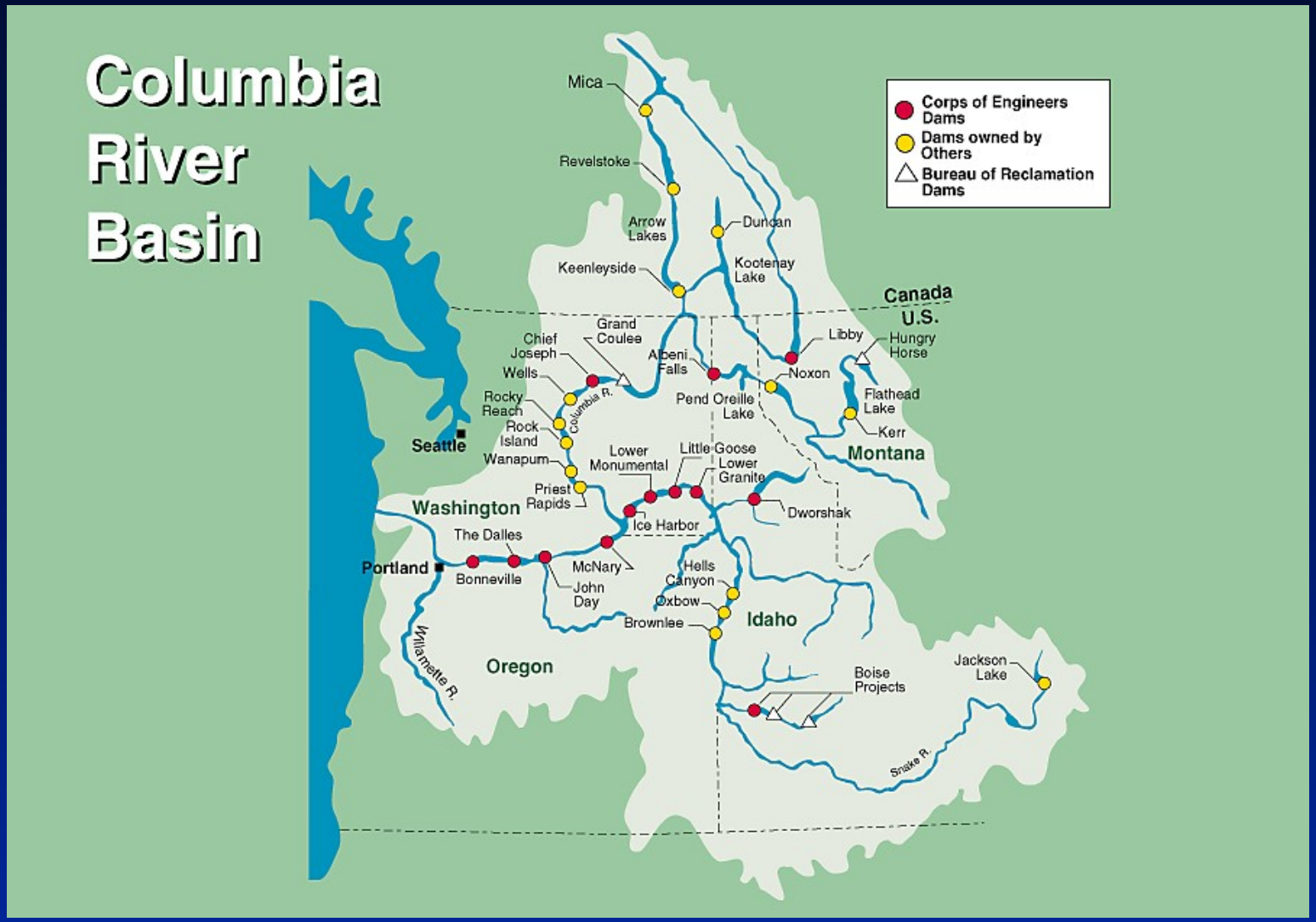
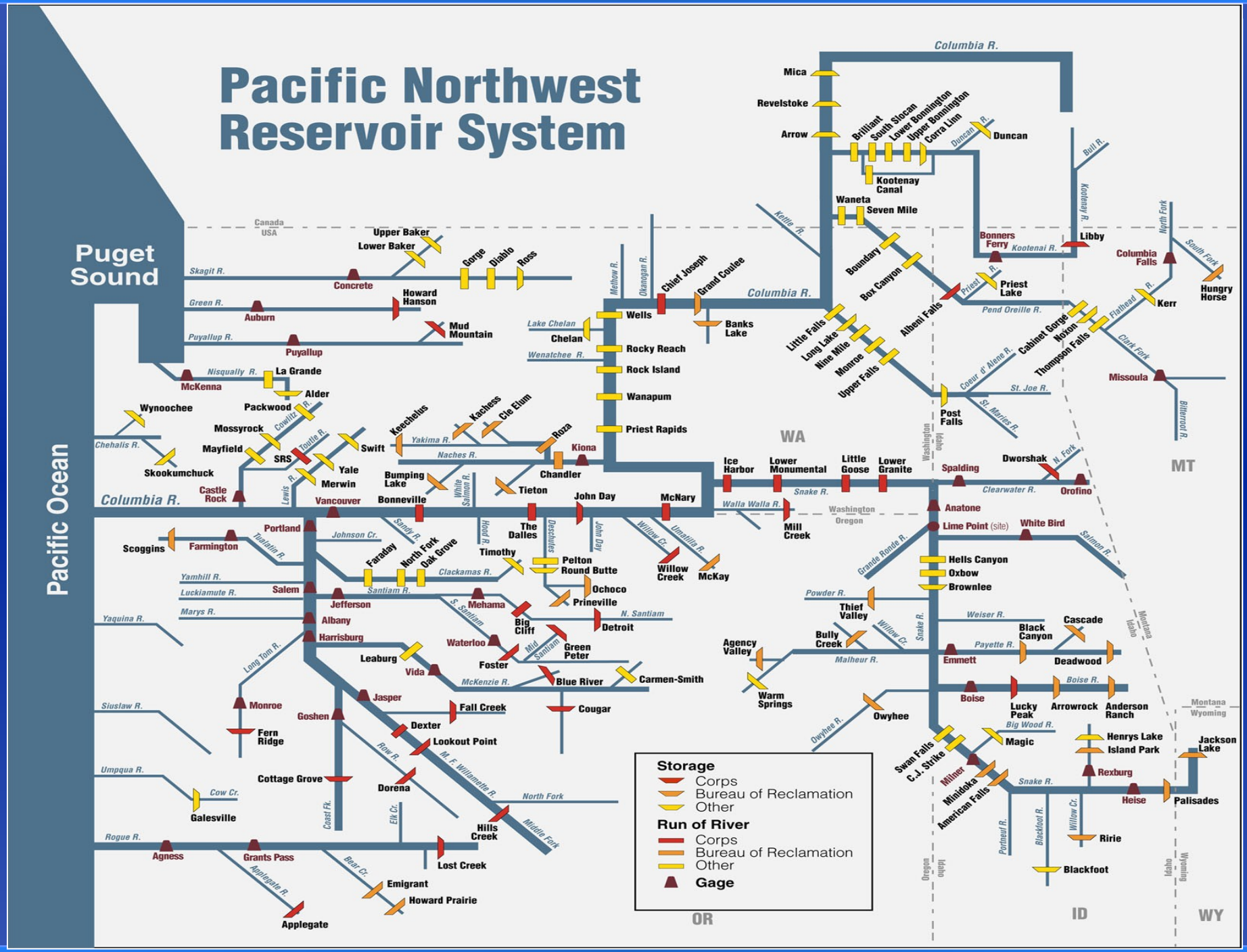
COLUMBIA BASIN WATER MANAGEMENT

Corps Northwestern Division Organization

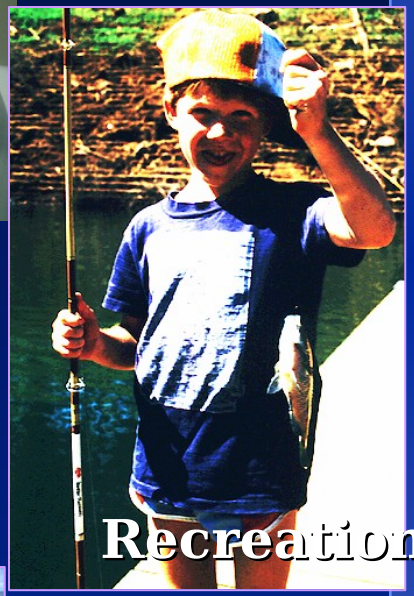


Columbia River Basin




Pacific Northwest Reservoir System
Puget Sound
Pacific Ocean
Canada
USA
Columbia R.
Mica
Revelstoke
Arrow
Brilliant
South Slocan
Lower Bonnington
Upper Bonnington
Corra Linn
Duncan R.
Duncan
Kootenay Canal
Waneta
Seven Mile
Kettle R.
Boundary
Box Canyon
Priest R.
Priest Lake
Albeni Falls
Pend Oreille R.
Bonners Ferry
Kootenai R.
Libby
Kootenay R.
Bull R.
Little Falls
Long Lake
Nine Mile
Monroe
Upper Falls
Coeur d' Alene R.
St. Joe R.
St. Maries R.
Post Falls
Cabinet Gorge
Noxon
Thompson Falls
Flathead R.
Clark Fork
Missoula
Bitterroot R.
North Fork
South Fork
Columbia Falls
Hungry Horse
Kerr
Upper Baker
Lower Baker
Gorge
Diablo
Ross
Concrete
Skagit R.
Howard Hanson
Green R.
Auburn
Mud Mountain
Puyallup R.
Puyallup
Nisqually R.
La Grande
McKenna
Alder
Packwood
Wynoochee
Mossyrock
Cowlitz R.
Chehalis R.
Mayfield
Toutle R.
SRS
Swift
Yale
Merwin
Skookumchuck
Lewis R.
Castle Rock
Columbia R.
Vancouver
Keechelus
Kachess
Cle Elum
Yakima R.
Roza
Naches R.
Kiona
Chandler
Bumping Lake
White Salmon R.
Tieton
Bonneville
Portland
Scoggins
Farmington
Tualatin R.
Johnson Cr.
Sandy R.
Hood R.
The Dalles
Deschutes
John Day R.
John Day
McNary
Willow Cr.
Umatilla R.
Willow Creek
McKay
Faraday
North Fork
Oak Grove
Timothy
Clackamas R.
Pelton
Round Butte
Ochoco
Prineville
Yamhill R.
Luckiamute R.
Salem
Santiam R.
Jefferson
Mehama
S. Santiam
N. Santiam
Detroit
Big Cliff
Marys R.
Albany
Harrisburg
Waterloo
Mid Santiam
Green Peter
Foster
Leaburg
Vida
McKenzie R.
Blue River
Carmen-Smith
Cougar
Yaquina R.
Long Tom R.
Siuslaw R.
Monroe
Fern Ridge
Jasper
Fall Creek
Goshen
Dexter
Lookout Point
Row R.
M. F. Willamette R.
Umpqua R.
Cottage Grove
Dorena
Cow Cr.
Galesville
Coast Fk.
Elk Cr.
North Fork
Middle Fork
Hills Creek
Rogue R.
Agness
Grants Pass
Applegate R.
Bear Cr.
Lost Creek
Emigrant
Howard Prairie
Applegate
Lake Chelan
Chelan
Wenatchee R.
Methow R.
Okanogan R.
Chief Joseph
Grand Coulee
Banks Lake
Wells
Rocky Reach
Rock Island
Wanapum
Priest Rapids
Columbia R.
WA
Ice Harbor
Lower Monumental
Little Goose
Lower Granite
Snake R.
Walla Walla R.
Mill Creek
Washington
Oregon
Washington
Idaho
Spalding
Dworshak
N. Fork
Clearwater R.
Orofino
MT
Anatone
Lime Point (site)
White Bird
Salmon R.
Grande Ronde R.
Hells Canyon
Oxbow
Brownlee
Powder R.
Thief Valley
Weiser R.
Cascade
Black Canyon
Bully Creek
Willow Cr.
Snake R.
Payette R.
Emmett
Deadwood
Agency Valley
Malheur R.
Warm Springs
Owyhee
Owyhee R.
Boise R.
Boise
Lucky Peak
Arrowrock
Anderson Ranch
Big Wood R.
Magic
Swan Falls
C.J. Strike
Milner
Minidoka
American Falls
Snake R.
Henrys Lake
Island Park
Rexburg
Heise
Jackson Lake
Palisades
Portneuf R.
Blackfoot R.
Willow Cr.
Ririe
Blackfoot
Montana
Wyoming
Montana
Idaho
Oregon
Idaho
Wyoming
Idaho
Storage
Corps
Bureau of Reclamation
Other
Run of River
Corps
Bureau of Reclamation
Other
Gage
OR
ID
WY

Operated for Multiple Purposes



Navigation

Columbia River:

- Serves 36 ports and carries 40% of U.S. wheat
- More than 485 miles of navigable water
- Transports 35 million tons of cargo each year
- Export & import traffic exceed $12 billion annually

Hydropower

- 21 Corps hydroelectric dams produce 12,900 MW

Fish / Endangered Species

Recreation

- **Corps projects in NWD host more than 46 million visitors annually.**

Flood Damage Reduction

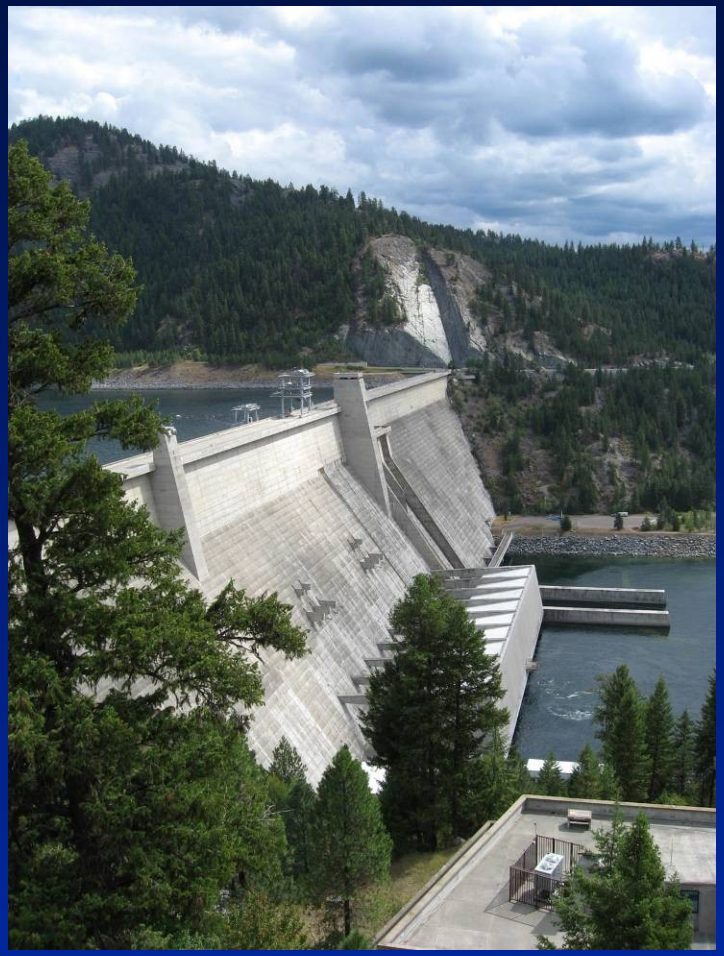
$3,900
TAXES '96
BECKHAND SURVIVES FALL IN WILLAMETTE
BUSINESSES SCURRY FOR VALENTINE'S DAY
ALL-STAR BRANDON REMEMBERS HIS ROOTS
ALL IN THE FAMILIES
MONDAY
35¢
The Oregonian
final
HOW THEY SAVED DOWNTOWN
The Army Corps of Engineers manipulated the water flow of 60 dams to keep the Willamette from flooding Portland
THE FLOOD OF '96

- Projects prevented ~$14 billion in cumulative damages
- Columbia Basin drains 259,000 square miles
- Flood control space about 25% of Columbia's seasonal volume.

GRAND COULEE DAM

- **Initial Project and Powerhouse completed in 1942**
- **Total gross storage = 9107.4 KAF**
- **Nameplate capacity = 6,494 MW**

LIBBY DAM



- **Initial Project and Powerhouse completed in 1976, unit 5 was installed in 1984**
- **Total gross storage = 5869.4 KAF**

DWORSHAK DAM

- **Initial Project and Powerhouse completed in 1973**
- **Total gross storage = 3468 KAF**
- **Nameplate capacity = 400 MW**

Bonneville Dam
Bonneville 2
Spillway
Bonneville 1

Questions
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